

PARAMETER TITLE: Minimum Number of Spores per Assay (n_{min})

VALUE	
UPPER	
ACCEPTABLE	$\frac{1}{250}$
LOWER	

APPLICATION	
MISSION	All Requiring Terminal Sterilization
CATEGORY	IV
PLANET	All

PARAMETER DEFINITION: The minimum number of spores per surface samples assayed acceptable in determining the minimum terminal sterilization cycle.

APPLICABLE SOURCE: All spacecraft surfaces.

CONSTRAINTS: The number of surface samples obtained per assay will be as specified in individual project microbiological assay plans per NPG 8020.12B. Typically, for spacecraft in the 50 - 500m² range, there will be approximately 250 surface samples (each about 25 cm² in area) taken per assay. For this class of spacecraft, if all the surface samples used in the assay are negative, an assigned value shall be used for purposes of determining the minimum terminal sterilization cycle. This assigned value shall be one viable spore per total number of surface samples used in the assay.

REFERENCES: 1. Minutes of Meeting of Viking Terminal Sterilization Process, Martin Marietta Corporation, Denver, December 11, 1973.

Planetary Protection Officer

Date